

## 1 Overview

BVF wishes to implement a ranking system that will be used to determine selection for GBR representative teams.

This document defines the events where ranking points are earned and how points are allocated.

A trial ranking system was introduced in April 2018 and the latest ranking is based on that design. The system can be seen on the BVF website: [Ranking System](#).

Ranking lists may be obtained by:

- Category – eg for fencers in Mens Sabre Category 2. There are 24 Category lists
- Weapon – eg for all fencers in Mens Sabre. There are 6 Weapon lists

### 1.1 Use of the Ranked Lists

#### Selection

The ranking lists are intended to be used for selection of GBR representative teams from January 2020 subject to approval by the BVF membership.

#### Seeding

BVF age categorised competitions, eg the Age Group Qualifiers, will be seeded using the Category rankings from January 2019.

BVF open competitions, eg the BVF Championships, will be seeded using the Weapon ranking from January 2019.

For 2019 and 2020 only the seeding may be overruled by the selectors.

### 1.2 Ranking Administration

The aim is to make collection of data quick and easy, to cut and paste results from the BF website, do a minimum of processing and import the results into the Ranking database with a click of a button.

I (John Mason) am prepared to administer the Ranking System as long as it is as easy as it sounds. This means that calls to include every competition known to man will be refused.

### 1.3 Nomenclature

An **event** has a name, a location and a date eg BVF Championships, Gloucester, 2016

A **competition** has a weapon, entries and results eg ME, 62 entries, John Mason came 1<sup>st</sup>

## 2 Ranking Events

### 2.1 Types of Event

CHOICE of event is important. We want Cat1 fencers to have competitions to attract them, while the Cat4 fencers have other competitions where they fence their peers and can avoid injury. The women also need a choice so that they avoid repeatedly fencing the same small group.

Choice is also important for those fencers who claim that they were denied a good result by being knocked out by a youngster or by someone having a bad seeding on the day. They have the option of reaching their potential in another event.

The table below shows the type of events to be included in the ranking system:

Event Type	Age Grouped
European Individual Championships	✓
BVF Championships	No
Age Group Qualifiers	✓
BVF West Midlands Open, BVF Hampshire Vets	No
Nominated Senior Opens	No
Nominated Overseas Veteran Opens	✓

It has been suggested that a circuit of events be created to be run in the same format of D/E in age categories. Only these events would be taken into consideration for ranking. This suggestion has been rejected as surveys of the membership have indicated a wish to include Opens as well as veteran only events.

### 2.2 Choice of Events - Rationale

Events are chosen by the BVF Ranking subcommittee in consultation with the Selectors.

Specific competitions may be specified eg F+E but not S where attendance by veterans is low.

More than one year's events may be included, this rewards consistency and provides a wider base of data.

The Ranking Points available and the Points Algorithm are determined by the type of event.

Events are chosen in advance and on the basis of significant attendance by BVF members AND to provide a geographical spread of events. Scottish fencers for example are currently badly served by selection events.

The past attendance at Opens in 2017-2018 can be seen [here](#).

There are events which must be included:

- BVF Championships

- BVF Age Groups
- EVF Individual Championships

European events should be included. Those suggested are existing events run on the same age category format and 6 such events were selected by the BVF committee for 2018. Events were taken from the EVF calendar and were in Germany, France and Italy.

European events are not mandatory but should be encouraged. If we are sending fencers to the World Championships then there are grounds for encouraging them to experience foreign competition.

The World Championships is a point of contention. The arguments are:

- A good result in the World Championships should be rewarded with a shed load of ranking points
- The World Championships is a selected event so disadvantages the many who were not selected

The World Championships have NOT been included in the current system.

Some BF Open events should be included. The younger fencers generally attend these and it is perverse to exclude them. There is a difficulty in assigning points to these mixed age category events as veterans usually appear towards the bottom of the final rankings. This difficulty is addressed in section 2.3 Ranking Points. Events are chosen which have had a reasonable number of fencers attending.

It is intended that other BF Open events and a second Age Groups event will be added in the future with a view to extending the geographical spread of ranking events.

The list is reviewed at regular intervals by the BVF Ranking subcommittee so that old events are removed. **The current list of ranking events should be available on the BVF website built from the database. This is not ready yet but a text file is available [here](#).**

There is a limit to the number of events that can be included – the Administrator has to process the data.

Note that attendance at events is a CHOICE. There are sufficient events that a BVF member may attend the events they want to attend; there is no requirement to attend.

### 2.3 Ranking Points

Values for the points awarded for first place in a competition (MaxPoints) varies with the event. The values are set by the Selectors. The table below is the opening suggestion.

The BVF Age Groups and Championships have high points as we want to get a high attendance.

Event Type	MaxPoints	Place Points
European Individual Championships	50	

BVF Championships	50	
Age Group Qualifiers	50	
Nominated Overseas Veteran Opens	40	
Nominated Senior Opens (Birmingham, Welsh, Scottish, Elite Epee) Grade 1	30	20
Nominated Senior Opens (Merseyside, Cambridge) Grade 2	30	20
West Midlands Open, Hampshire Vets, Veterans Elite Epee	30	

It has been suggested that the Nominated Overseas Veteran Opens are significantly tougher than UK Opens and that the MaxPoints should therefore be higher.

## 2.4 Method of Processing

Placings for age categorised competitions are taken straight from the published results. If an event allows foreign or non-BVF entries and the top placed BVF member is third then he/she gets points for 3<sup>rd</sup> place.

The BVF Championships are filtered. Each weapon is filtered to 4 Category lists. Each category list is then allocated points independently.

Results for BF Open competitions are first filtered to extract a single list of the veterans results. This may result, for example, in a list of 9 veterans in several age categories from a list of 50 results. Two sets of points are allocated:

- a) Points based on the position in the competition, plus
- b) Points based on the position in the list of veterans

Thus a vet who comes top of the veterans is rewarded and has a supplement if he/she is ranked highly in the competition.

## 2.5 Allocation of Points Algorithm

There are 2 methods of allocating points:

- a) Table
- b) Algorithm

### 2.5.1 Table

Points are taken from the table according to the position in the final ranking table.

The table is used to allocate points at the BVF Age Groups, BVF Championships and the European Individual Championships.

Position	Points
1	50
2	43
3	37
4	32
5	27
6	23
7	19
8	16
9	13
10	10
11	7
12	5
13	4
14	3
15	2
16	1

### 2.5.2 Algorithm

The algorithm is used for all other competitions.

Whatever the size of the competition the first placed gets Max Points and the last placed is awarded 1 point. An algorithm is then used for intermediate places. Two algorithms are available: sliding scale and logarithmic scale.

The logarithmic scale gives higher points to the top placed fencers.

Both algorithms ensure that a 3<sup>rd</sup> place in an entry of 30 is better rewarded than a 3<sup>rd</sup> place in an entry of 5.

The bottom place is awarded 1 point so that ALL veteran fencers appear in the ranking list.

For a **sliding scale** the points awarded are:

$$y = MP - (MP-1) * (x-1)/(N-1)$$

For a **logarithmic scale** the points awarded are:

$$y = MP - (MP-1) * \log(x)/\log(N) \text{ where}$$

y = points awarded

MP = Maximum Points awarded (ie to first place in this event)

X = final ranking of the fencer

N = number of entries

A demonstration of how the 2 scales work is available [here](#).

The log scale has been adopted.

### 3 Sub-set of Results

Fencers are not expected to do every competition but they are expected to choose a minimum number to accumulate points.

It is no longer possible for a fencer to qualify for selection from just one competition.

**The five (5) best results are taken from a set of events over 2 years.**

This is likely to be a point of discussion. The arguments are:

- Con - A fencer could do well a year ago and bomb this year. This is unlikely but not impossible.
- Pro - A fencer's consistency should be recognised.
- Pro – the more results are included the more reliable the ranking

The protection against a fencer doing well a year ago but not performing this year because, perhaps, of injury can be handled by:

- a) Reducing the points awarded to older events (to 75%?) OR
- b) Giving the Selectors the authority to take a fencer's fitness into consideration at the point of selection

No algorithm has been programmed for this protection.

### 4 Implementation of a Ranking System

The system can be accessed from the BVF [Latest News page](#).

John Mason

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